Statement of Substance of the Interview

On April 6, 2010, the applicant, Dietmar Kaiser, along with counsel of record Frank W. Compagni and foreign counsel Erich Hasler participated in a telephonic interview with Examiner Lucas Stelling. Applicant provided a proposed set of claims and argued that the claims were patentable over the prior art. The Examiner indicated that the proposed set of claims would require further search and/or consideration and would therefore not be entered. The prior art of U.S. Patent No. 5,946,767 to Sinz and and CH 630684 to Widenmnann was discussed in light of the proposed claims. The examiner made some suggestions as to certain structural elements to be added to the claims. The applicant and examiner did not reach an agreement as to any specific claims or claim language.

The claims submitted for consideration in the interview were as follows:

27. (new) An apparatus for separating mud from water of an air- mud-water mixture, comprising:

a water tank defining a first reservoir and having a water tank inlet and a water tank outlet in an upper portion thereof; and

a separation device defining a second reservoir, the second reservoir defining a mud reservoir at a bottom end thereof, coupled to and disposed at least partially within the water tank at a bottom of the water tank and extending into the water tank so that the water tank at least partially surrounds the separation device, the first and second reservoirs being separated by walls of the separation device to prevent direct fluid communication between the first and second reservoirs, and a separation device inlet having a first end configured to be in fluid communication with a mud tank and a second open end extending into the separation device with the second open end positioned above the mud reservoir such that an air-mud-water mixture being pumped through the separation device inlet sprays into the second reservoir causing mud in the air-mud-water mixture to settle into the mud reservoir and water from the air-mud-water mixture to be pumped through an outlet in a top end of the separation device;

whereby the water from the separation device can be pumped into the water tank inlet and deposited in the first reservoir and air within the water tank can flow through the water tank outlet.

28. (new) The apparatus of claim 27, further comprising a baffle positioned within the second reservoir and spaced from the second open end of the separation device inlet so that the air-mud-water mixture being pumped through the separation device inlet sprays against the baffle.

29. (new) The apparatus of claim 27, wherein the separation device is substantially coaxially positioned within the water tank with the water tank and separation device being substantially vertically oriented.

30. (new) The apparatus of claim 27, further comprising a four-way valve having first and second valve inlets and first and second valve outlets, the first and second valve inlets being coupled to the water tank and separation device outlets, the first valve outlet being coupled to a pump that is coupled to the water tank inlet and the second valve outlet being in fluid communication with the vicinity.

31. (new) The apparatus of claim 30, wherein in a first state the four-way valve directs a flow from the separation device outlet to the first valve outlet and from the water tank outlet to the second valve outlet and in a second state the four-way valve directs a flow from the second valve outlet to the first valve outlet and from the water tank outlet to the separation device outlet.

32. (new) The apparatus of claim 28, wherein the separation device inlet comprises a tube substantially vertically extending within the second reservoir from a bottom of the separation device defining the mud reservoir between the tube and the walls of the separation device and the baffle is positioned above the open end of the separation device inlet.

33. (new) The apparatus of claim 27, further comprising a mud tank separate from the water tank and separation device having a mud tank outlet in fluid communication with the separation device inlet.

34. (new) The apparatus of claim 33, wherein the mud tank is substantially horizontally oriented and comprises a cover on one end thereof configured to be swivelled upwardly to allow removal of solid materials contained therein.

35. (new) The apparatus of claim 27, wherein the separation device is contained within the water tank and wherein an outer wall of the separation device forms an inner wall of the water tank.

36. (new) The apparatus of claim 35, wherein the water tank and separation device are substantially cylindrically shaped and an air-water mixture flowing into the water tank inlet is directed somewhat tangentially into the first reservoir for forming a cyclone in the water tank.

37. (new) An apparatus for separating water from a mud-water mixture, comprising:
a mud tank;
a pump;
a water tank defining a first reservoir and having a water tank inlet coupled to a pump outlet of the pump and a water tank outlet in an upper portion thereof; and
a separation device defining a second reservoir, the second reservoir defining a mud reservoir at a bottom end thereof, coupled to and disposed at least partially within the water tank at a bottom of the water tank and extending into the water tank so that the water tank at least partially surrounds the separation device, the first and second reservoirs being separated by walls of the separation device to prevent direct fluid communication between the first and second reservoirs, and a separation device inlet having a first end in fluid communication with the mud tank and a second open end extending into the separation device with the second open end positioned above the mud reservoir;
whereby an air-mud-water mixture being pumped by the pump through the separation device inlet sprays into the second reservoir causing the mud in the air-mud-water mixture to settle into the mud reservoir and the water to be pumped through an outlet in an upper end of the separation device into the pump with the water pumped into the water tank inlet and deposited in the first reservoir and the air within the water tank flowing out of the water tank through the water tank outlet.

38. (new) The apparatus of claim 37, further comprising a baffle positioned within the second reservoir and spaced from the second open end of the separation device inlet so that the air-mud-water mixture being pumped through the separation device inlet sprays against the baffle.

39. (new) The apparatus of claim 37, wherein the separation device is positioned substantially within the water tank with the water tank and separation device being substantially vertically oriented.

40. (new) The apparatus of claim 37, further comprising a four-way valve having first and second valve inlets and first and second valve outlets, the first and second valve inlets being coupled to the water tank and separation device outlets, the first valve outlet being coupled to a pump that is coupled to the water tank inlet and the second valve outlet being in fluid communication with the vicinity.

41. (new) The apparatus of claim 40, wherein in a first state the four-way valve directs a flow from the separation device outlet to the first valve outlet and from the water tank outlet to the second valve outlet and in a second state the four-way valve directs a flow from the second valve outlet to the first valve outlet and from the water tank outlet to the separation device outlet.

42. (new) The apparatus of claim 38, wherein the separation device inlet comprises a tube substantially vertically extending within the second reservoir from a bottom of the separation device defining the mud reservoir between the tube and the walls of the separation device and the baffle is positioned above the open end of the separation device inlet.

43. (new) The apparatus of claim 37, wherein the mud tank is separate from the water tank and separation device.

44. (new) The apparatus of claim 43, wherein the mud tank is substantially horizontally oriented and comprises a cover on one end thereof configured to be swivelled upwardly to allow removal of solid materials contained therein.

45. (new) The apparatus of claim 37, wherein the separation device is contained within the water tank and wherein an outer wall of the separation device forms an inner wall of the water tank.

46. (new) The apparatus of claim 45, wherein the water tank and separation device are substantially cylindrically shaped and an air-water mixture flowing into the water tank inlet is directed somewhat tangentially into the first reservoir for forming a cyclone in the water tank.

REMARKS

Claims 1-8, 11-15, 18, 19 and 21-26 are currently pending in the application. The applicant has amended the claims by cancelling claims 1-8, 11-15, 18, 19 and 21-26 and adding new claims 27-46. All claim cancellations and amendments have been made without prejudice or waiver. Furthermore, the new claims are supported by the specification and drawings as originally filed. Thus, no new matter has been added.

Claim Rejections under 35 U.S.C. 102 and 103

The new claims are submitted in conjunction with the filing of a Request for Continued Examination. The Examiner has finally rejected claims 1, 3, 8, 11 and 14 under 35 USC 102(b) as being anticipated by U.S. Patent no. 5,946,767 to Sinz and claims 15, 19, 21 and 22 as being anticipated by CH 630684 to Widenmnann. The Examiner also rejected claims 1-8, 11-14, 18 and 22-26 under 25 USC 103(a) as being unpatentable over Widenmann in view of Sinz.

In order to maintain a rejection under 35 USC 102(b), the cited reference must contain each and every element of the claimed invention. When a rejection is based on Section 103(a), a *prime facie* case of obviousness must be maintained. The applicant respectfully submits that new claims 27-46 are patentable over Sinz and Widenmann, whether alone or in combination, since neither Sinz nor Widenmann teach or suggest the claimed invention. Reconsideration is respectfully requested.

CONCLUSION

The Applicant respectfully requests entry of the foregoing amendments to the claims and reconsideration of the claim rejections. Any unpaid fees associated with this Amendment may be charged to deposit account 50-0881. The Examiner is encouraged to contact the undersigned attorney directly if further action in this case can be expeditiously resolved.

Respectfully submitted,

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